Comparisons of Job Characteristics

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	18.0	14.9	<	Expanded education and/or training may be required
Engineering and Technology	5.7	16.1	21.2	>>	Current knowledge level is likely more than sufficient
Design	5.2	15.1	17.6	>	Current knowledge level is likely sufficient
Production and Processing	6.0	12.6	11.1	<	Expanded education and/or training may be required
Physics	4.3	10.2	13.5	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 58

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Operation Monitoring	6.6	10.7	8.7	<	A higher skill level may be required
Quality Control Analysis	5.9	10.2	9.6	0	Current skill level may be sufficient
Operation and Control	5.4	9.0	3.7	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	7.3	7.8	0	Current skill level may be sufficient
Equipment Maintenance	3.5	6.8	1.6	<<	Extensive development of skills in this area may be required
Repairing	3.4	6.6	2.1	<<	Extensive development of skills in this area may be required

Equipment Selection	3.3	6.2	2.2	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Category Flexibility	9.0	10.7	10.8	0	Current ability level may be sufficient
Control Precision	6.6	10.2	3.1	<<	Extensive improvement in abilities may be required
Visualization	7.5	10.2	13.6	>>	Current ability level is likely more than sufficient
Number Facility	6.3	9.7	12.6	>>	Current ability level is likely more than sufficient
Perceptual Speed	7.4	9.6	9.3	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	9.2	7.9	<	Some improvement in abilities may be required
Wrist-Finger Speed	3.2	5.5	2.6	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 83

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Work Activities	Exclusivity of Activity
Analyze engineering design problems	69
Analyze engineering test data	71
Analyze technical data, designs, or preliminary specifications	47
Calculate engineering specifications	64
Communicate technical information	4
Conduct performance testing	66
Confer with engineering, technical or manufacturing personnel	25
Develop plans for programs or projects	31
Draw prototypes, plans, or maps to scale	57
Estimate cost for engineering projects	69
Evaluate engineering data	60
Inspect facilities or equipment for regulatory compliance	51
Prepare technical reports or related documentation	22

Read blueprints	10
Read technical drawings	7
Test equipment as part of engineering projects or processes	67
Understand engineering data or reports	48
Use drafting or mechanical drawing techniques	50
Use scientific research methodology	21
Use technical regulations for engineering problems	61

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Marine Engineers and Naval Architects (17-2121)
Associated Occupation: Mechanical Engineering Technicians (17-3027)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Face and head protection	7
Industry specific software	1
Information exchange software	1
Integrated circuits	18
Vision protection and accessories	3

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.